

REMARKS

A. Status of the Specification

1. Abstract of the Disclosure is Now in Proper Form

The Action objects to the Abstract, stating that it is not one paragraph and that it contains more than 150 words. The Abstract submitted in the Amendment is in a proper form. Therefore, this objection is overcome.

2. Title of the Invention is Descriptive

The Action objects to the title of the invention, stating that it is not descriptive. Applicant disagrees with this characterization of the previous title, however, in order to progress prosecution, the title has been modified in the Amendment submitted herewith. Therefore, this objection has been overcome.

B. Status of the Claims

Claims 24-60 were pending at the time of the Action; although claims 46-60 had been withdrawn from prosecution without prejudice or disclaimer in Response to the Restriction Requirement dated July 11, 2003. In the Action, the Examiner held that claims 41 and 43 are withdrawn from consideration, as drawn to non-elected species.

Claims 24-31, 34-35, 38-39, and 41-45 have been amended in the Amendment submitted herewith, and claim 61 has been added by amendment. No new matter has been added by these amendments. Claims 46-60 have been cancelled without prejudice or disclaimer.

Therefore, claims 24-45, and 61 are pending, of which claims 41 and 43 have been held withdrawn by the Examiner in the present Action as being drawn to a non-elected species. Reentry of these claims in view of the allowability of the other claims is requested below.

C. Claim 29 Does Not Contain Informalities

The Action objects to claim 29, stating that it is missing a verb. Applicant respectfully disagrees with the Action's objection. Nonetheless, present claim 29 does not contain the terms to which the Action objected.

D. Statutory Class of Invention of Present Claims is Clear

The Action rejects claims 24-40, 42 and 44-45 under 35 U.S.C. 101 as being directed to non-statutory subject matter, and under 35 U.S.C. 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant respectfully traverses the Action's rejection.

The present claims clearly claim an apparatus class of invention. Therefore, this rejection is overcome.

E. Remaining 35 U.S.C. 112, Second Paragraph Rejections Are Overcome

The Action rejects claims 24, 26, 29 and 30 under 35 U.S.C. 112, second paragraph. Applicant respectfully traverses the Action's rejection.

1. Claim 24 – “large” and “highly sensitive”

The Action asserts that the terms “large” (of “large-area”) and “highly sensitive” are relative terms that rendered previous claim 24 indefinite and/or unclear. These terms are not found in present claim 24, therefore, this rejection is overcome.

2. Claim 24 – “the sample holding means” and “said sample holding means”

The Action suggests that there is insufficient antecedent basis for the limitations “the sample holding means” and “said sample holding means” of previous claim 24. Present claim 24 addresses these concerns, therefore, this rejection is overcome.

3. Claim 24 – “the detection and analysis system”

The Action contends that there is insufficient antecedent basis for the limitation “the detection and analysis system” in previous claim 24. Applicant respectfully disagrees. Nonetheless, present claim 24 even more clearly provides sufficient antecedent basis for this limitation, and therefore this rejection is moot.

4. Claim 24 – Last Phrase: “a control unit . . .”

The Action asserts that the last phrase of previous claim 24 is vague and indefinite, contending that it is not clear how the movements of a sample could be coordinated with respect to itself, or why “said sample” is stated twice. Present claim 24 addresses this issue, thus, this rejection is overcome.

5. Claim 26 – “equal marker”

The Action argues that the term “equal marker” of claim 26 is vague and indefinite. The term “equal marker” is used in the phrase “wherein said marker molecules are equal marker molecules” in claim 26 as amended. By “equal marker molecules” Applicant refers to the same marker molecules, i.e. that all of the marker molecules are the same. Those skilled in the art will appreciate upon reading the specification and claims the scope of the term “equal” marker molecules. “[I]t is important to bear in mind that the viewing glass through which the claims are construed is that of a person skilled in the art.” *Interactive Gift Express, Inc. v. Compuserve Inc.*, 256 F.3d 1323, 1332 (Fed. Cir. 2001); *see also Hoechst Celanese Corp. v. BP Chems. Ltd.*, 78 F.3d 1575, 1578 (Fed. Cir. 1996) (stating that a technical claim term is interpreted as having the meaning that it would be given by persons experienced in the field of the invention). Therefore, because those skilled in the art recognize the scope of the phrase “equal marker molecules,” claim 26 is not vague nor indefinite.

6. Claims 29 and 30 – “said sample control unit”

The Action states that there is insufficient antecedent basis for “said sample control unit” in previous claims 29 and 30. Applicant respectfully disagrees. Nonetheless, these terms are not found in present claims 29 and 30 and accordingly this rejection is overcome.

F. Rejections Under 35 U.S.C. 102 Are Overcome

The Action rejects claim 24, under 35 U.S.C. 102(a) as being anticipated by Steyer, J.A.; Almers, W. “Tracking Single Secretory Granules in Live Chromaffin Cells by Evanescent-Field Fluorescence Microscopy” *Biophysical Journal* April 1999, 76, 2262-2271 (hereinafter Steyer), under 35 U.S.C. 102(b) as being anticipated by Schmidt, Th; Schutz, G.J.; Baumgartner, W.; Gruber, H.J.; Schindler, H. “Imaging of single molecule diffusion” *PNAS USA* April 1996, 93, 2926-2929 (hereinafter Schmidt), and under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,388,746 by Eriksson *et al.* (hereinafter Eriksson).

Applicant respectfully traverses the Action’s rejections as set forth below.

1. Steyer Is Not Prior Art

Together with this response, Applicant is filing a certified copy of the Austrian Priority document. Therefore the October 28, 1998, date of priority of the instant application is perfected. As such, Steyer may not be considered as § 102 (a) prior art since it was published on April 1999, a date after October 28, 1998.

2. Eriksson Is Not Prior Art

Eriksson is not prior art, since under the applicable 35 U.S.C. 102(e), Applicant’s date of invention is before Eriksson’s § 102(e) date. The Examiner cites, in pages 11-12 of the Office Action, an old version of 35 U.S.C. 102(e) that is no longer in effect and inapplicable to

Eriksson. Under the applicable provisions, Eriksson's § 102(e) date should be the filing date of Eriksson's U.S. continuing application that claimed the benefit of the international application (August 7, 2000), or at the earliest, the filing date of Eriksson's PCT application designating the U.S. (Feb. 5, 1999). *See* MPEP § 706.02(a) at 700-22 – 700-23.

The current version of 35 U.S.C. §102(e) applies "to all patents and all applications for patents pending on or filed after November 29, 2000." Public Law 107-273, sec. 13205, 116 Stat. 1903. Even though the U.S. Eriksson application was pending on November 29, 2000, "[p]atents resulting from an international application filed before November 29, 2000 . . . shall not be effective as prior art as of the filing date of the international application." *Id.* "[S]uch patents shall be effective as prior art in accordance with section 102(e) in effect on November 28, 2000." *Id.*; *see also* MPEP § 706.02(a) at 700-23 ("Patents issued directly, or indirectly, from international applications filed before November 29, 2000 may only be used as prior art based on the provisions of 35 U.S.C. 102(e) in effect before November 29, 2000"). Since the Eriksson patent resulted from an international application filed before November 29, 2000, it is subject to the former version of 35 U.S.C. § 102(e) that states: "A person shall be entitled to a patent unless . . . the invention was described in . . . an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent." MPEP § 706.02(a) at 700-23.

"Thus, the 35 U.S.C. 102(e) date of such a prior art patent is the earliest of the date of compliance with 35 U.S.C. 371(c)(1), (2) and (4), or the filing date of the later-filed U.S. continuing application that claimed the benefit of the international application." *Id.* As already indicated, Eriksson's earliest possible § 102 (e) date is therefore February 5, 1999. This date is

well after Applicant's date of invention, which at the latest would be October 28, 1998. As such, Eriksson may not be considered as prior art under 35 U.S.C. § 102(e).

In view of the above, only rejections under Schmidt must be addressed substantively.

4. Claim 24 and Its Dependent Claims (Claims 25-45 and 61) Are Patentable Over Schmidt

The Action rejects claim 24 under 35 U.S.C. 102(b) as being anticipated by Schmidt. Applicant respectfully traverses the Action's rejection.

It is axiomatic that if a reference does not have "each and every element as set forth in the claim," that claim is not anticipated by the reference. MPEP § 2131 at 2100-70 (citing *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987); *see also Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989) ("The identical invention must be shown in as complete detail as is contained in the patent claim"). The present claims relate to:

An arrangement adapted to visualize molecules, movements of molecules, interactions between molecules, and molecular processes in a sample during use, by using a single dye tracing (SDT) method, said arrangement comprising:

at least one source of light adapted to fluorescently excite, via single or multiple photon absorption, marker molecules in said sample during use;

a sample holder;

a detection and analysis system comprising a charged coupled device (CCD) camera, wherein at least one of the sample holder and the detection and analysis system is movable laterally, relative to the other during use; and

a control unit adapted to coordinate and synchronize illumination times and lateral movement between said sample holder and said detection and analysis system during use.

Claim 24

Schmidt does not disclose each and every element as is set forth in this claim. In particular, for example, Schmidt neither teaches or suggests a system “wherein at least one of the sample holder and the detection and analysis system is movable laterally, relative to the other during use.” There is neither disclosure of such movement in Schmidt, nor description for any mechanism capable of bringing about such motion in the written parts or drawings of Schmidt. Therefore, the Action does not meet the burden of proving that Schmidt anticipates the present claims.

The Action suggests that in Schmidt, “there are many parts of the detection and analysis system that are ‘moveable’ relative to the sample holding means.” However, the only example provided is a “shutter for CCD,” and this does not meet the limitation of “at least one of the sample holder and the detection and analysis system [being] movable laterally, relative to the other during use.” A shutter as described in Schmidt may open and close during operation, however while doing so, the shutter’s relative lateral position to any sample holder remains constant.

Further, even if, *arguendo*, Schmidt were to describe one of the sample holder or the detection and analysis system moving relative to the other, which it does not, there is absolutely no description of this as lateral movement or description of a structure for bringing about such movement in Schmidt. Moreover, there is no description in Schmidt of a control unit adapted to coordinate and synchronize illumination times and lateral movement between said sample holder and said detection and analysis during use. And even if, as the Office suggests, Schmidt contains a TH512B chip, there is no disclosure or suggestion in Schmidt as to what this chip does, nor is there any disclosure or suggestion that this chip is a control unit adapted to coordinate and

synchronize illumination times and lateral movement between a sample holder and a detection and analysis system during use.

Regarding the arguments provided in page 17 of the Action to the effect that “Schmidt et al uses the same ‘epifluorescence microscope,’” in some embodiments of the current invention the same microscope as the one in Schmidt indeed may be used. However, there is no teaching nor suggestion in Schmidt of such a microscope being adapted to move, much less having been adapted to move laterally relative to a sample holder during use.

Finally, because Schmidt provides no teaching of, suggestion of, or motivation to make, a sample holder and a detection and analysis system comprising a charged coupled device (CCD) camera, wherein at least one of the sample holder and the detection and analysis system is movable laterally, relative to the other during use, it cannot render the current claims obvious.

For at least these reasons, independent claim 24 and all is dependent claims, claims 25-45 and 61, are patentable over Schmidt. *See Hartness International, Inc. v. Simplimatic Engineering Co.*, 819 F.2d 1100, 1108 (Fed. Cir. 1987) (holding that dependent claim was nonobvious and novel because it contained all the limitations of a valid independent claim, plus a further limitation); *See Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1576 n. 36 (Fed. Cir. 1987). Applicant respectfully requests that these claims be allowed.

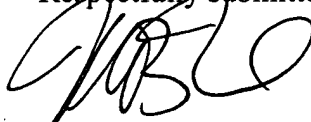
H. Entry of Non-elected Species Is Requested

In view of the forgoing arguments, all the presented claims are in condition of allowance. Thus, all species contained in the dependent claims withdrawn by the examiner (claims 41 and 43) should be reentered into the case and allowed. Applicant respectfully requests that all such dependent claims be considered and allowed.

I. Conclusion

Applicant respectfully submits that claims 24-45 and 61 are in condition for allowance. The Examiner is invited to contact the undersigned attorney at (512) 536-3035 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'MBW', is written over the typed name 'Mark B. Wilson'.

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